

Guidelines for the management of gestational diabetes mellitus revisited

David S Simmons,* Barry N J Walters,† Peter Wein,‡ N Wah Cheung[§] on behalf of the Australasian Diabetes in Pregnancy Society

*Professor of Rural Health, University of Melbourne, PO Box 6500, Shepparton, VIC 3632. <dsimmons@unimelb.edu.au>; †Associate Professor (Clinical), University of Western Australia, Department of Obstetrics and Gynaecology, King Edward Memorial Hospital, Subiaco, WA; ‡Obstetrician, Diabetes Unit, Royal Women's Hospital, Carlton, VIC; §Endocrinologist, Westmead Hospital, NSW.

TO THE EDITOR: In 1998, the Australasian Diabetes in Pregnancy Society (ADIPS) published management guidelines for gestational diabetes mellitus (GDM).¹ Recently, the American College of Obstetricians and Gynecologists (ACOG) published its clinical management guidelines for GDM.² The Table shows there are few differences from the ADIPS guidelines. At this stage, ADIPS does not consider existing evidence warrants revision of its guidelines. ADIPS will retain its existing criteria for the diagnosis of GDM based on a 75 g oral glucose tolerance test (OGTT) pending publication of the Hyperglycaemia and Adverse Pregnancy Outcome Study.³ The results of this international prospective study of 25 000 pregnant women should be available in June 2004.

A second publication, the draft *National evidence-based guidelines for the management of Type 2 diabetes mellitus*,⁴ does not include GDM, but initially recommended that "women with previous GDM should be retested every three years for undiagnosed Type 2 diabetes". This periodicity was selected to retest for undiagnosed disease when the cumulative risk of developing diabetes had reached 5%. The time interval was selected on the basis of European studies.

In contrast, the ADIPS guidelines recommended testing every 1–2 years, but gave no reason for this, apart from the high risk of progression to diabetes among women of certain ethnic backgrounds who had had past GDM (as high as 47% over five years in Latino women⁵). A further, unstated reason for the 1–2-yearly testing was the major concern that fetal exposure to undiagnosed diabetes in any subsequent pregnancies could result in malformations.

The following has now been inserted into the draft Type 2 guidelines:⁴ "The guideline conclusion to retest women with previous GDM every 3 years represents minimum criteria. More frequent retesting may be appropriate depending on clinical circumstances, especially during the child bearing years."

ADIPS supports this amendment fully and has revised its own guidelines in relation to maternal follow-up after GDM as follows:

- All women with previous GDM to be offered testing for diabetes with a 75 g OGTT 6–8 weeks after delivery;
- Repeat testing should be performed every 1–2 years among women with normal glucose tolerance and the potential for further pregnancies;
- If pregnancy is not possible, follow-up testing should be performed every 3 years, with more frequent retesting depending on clinical circumstances (eg, ethnicity, past history of insulin treatment in pregnancy, recurrent episodes of GDM).

1. Hoffman L, Nolan C, Wilson JD, et al. Gestational diabetes mellitus — management guidelines. The Australasian Diabetes in Pregnancy Society. *Med J Aust* 1998; 169: 93-97.
2. American College of Obstetricians and Gynecologists. Clinical management guidelines for obstetrician-gynecologists: Gestational Diabetes. *ACOG Practice Bull* 2001; 30: 525-538.
3. Oats J, McIntyre D, Morrison B, Parry A. Gestational diabetes randomised controlled trials: the HAPO (Hyperglycaemia and Adverse Pregnancy Outcome) Study. *Australas Diabetes Pregnancy Soc News* 2001; February: 10-11.
4. Australian Centre for Diabetes Strategies. National evidence based guidelines for the management of Type 2

diabetes mellitus: Public consultation draft. March 2000. Primary detection; Case detection and Diagnosis. Sydney: Australian Centre for Diabetes Strategies, 2000: 209.

5. Kjos S, Peters RK, Xiang A, et al. Predicting future diabetes in Latino women with gestational diabetes. Utility of early postpartum glucose tolerance testing. *Diabetes* 1995; 44: 586-591. □

Updates in medicine: paediatrics and paediatric surgery

Andrew J A Holland,* John Pitkin,† Daniel T Cass‡

*Senior Lecturer in Paediatric Surgery, †Dunlop Professor of Paediatric Surgery, Department of Academic Surgery, The Children's Hospital at Westmead, The University of Sydney, Locked Bag 4001, Westmead, NSW 2145 <andrewh3@chw.edu.au>; ‡Chair, Division of Surgery (and President, Australasian Association of Paediatric Surgeons), The Children's Hospital at Westmead, Westmead, NSW.

TO THE EDITOR: While we enjoyed reading Sewell's article summarising advances in paediatrics, there was no mention of developments in general paediatric surgery.¹ About a third of all patients admitted to a paediatric hospital have surgical conditions. Viable advances would thus have significant implications for many children and their families.

Prevention: Although vaccination against infectious diseases remains vital, the greatest killer of children in Australia is trauma.² Detailed analysis of patterns of injury morbidity and mortality enable recommendations for prevention to be made. Legislation to reduce the risk of scalding was enacted in 1999 in NSW to regulate the temperature of hot water in new homes. Similar measures, in addition to educating families and their local doctors, have been proposed to prevent driveway and horse-related trauma in children.^{3,4} Overseas data confirm that such interventions may be effective in helping to reduce Australia's

Differences between management guidelines for gestational diabetes mellitus (GDM) from the Australasian Diabetes in Pregnancy Society (ADIPS, 1998) and the American College of Obstetricians and Gynecologists (ACOG, 2001)

	ADIPS	ACOG
Universal versus selective screening by blood test	Universal unless low GDM incidence or resources limited	No recommendation. States that "many physicians elect to screen all pregnant patients as a practical matter"
Differences in definition of low risk for GDM	Age <30 years, obesity, family history of diabetes	Age < 25 years, body mass index <25kg/m ² . No known diabetes in first-degree relative
Oral glucose tolerance test used	75g, 2-hour, 2-point blood sampling	100g, 3-hour, 4-point blood sampling
Criteria for diagnosis of GDM	Plasma glucose level: Fasting, ≥ 5.5 mmol/L and/or 2-hour, ≥ 8.0mmol/L	Plasma glucose level: Fasting, ≥ 5.3mmol/L; 1-hour, ≥ 10.0mmol/L; 2-hour, ≥ 8.6mmol/L; 3-hour, ≥ 7.8mmol/L (2 or more time points need to be elevated)
Insulin therapy commenced after medical-nutrition therapy	Plasma glucose level: Fasting, ≥ 5.5 mmol/L and/or 1-hour postprandial, ≥ 8.0mmol/L and/or 2-hour postprandial, ≥ 7.0 mmol/L	Plasma glucose level: Fasting, ≥ 5.3mmol/L and/or 1-hour postprandial, ≥ 7.2–7.8mmol/L and/or 2-hour postprandial, ≥ 6.7 mmol/L